

Support for the amendment of claims 19 and 20 is found in the specification, for example, at page 8, second full paragraph, and at page 32, second full paragraph.

Claims 3, 9-11, 13, 15-18 and 20 have been amended to correct improper multiple dependencies.

Support for new claims 21 and 24 is found in the specification at page 23, line 15.

Support for new claims 22 and 25 is found in the specification at page 23, line 6.

Support for new claims 23 and 26 is found in the specification at page 16, line 2, and page 22, line 13.

Support for new claim 27 is found in claim 9 as filed originally.

Support for new claim 28 is found in the specification at page 32, line 25, and in claim 10 as filed originally.

No new matter has been added by this amendment.

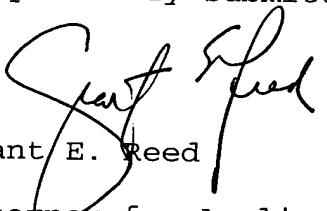
**III. Unity Of Invention Practice, Not Restriction Practice,  
Applies To The Present Application**

Applicants respectfully point out that the present application is the U.S. national phase of international application no. PCT/US00/15037. U.S. restriction practice under MPEP section 803 is not applicable to the U.S. national phase of an international application. See MPEP section 1893.03(d). Instead, unity of invention practice applies to an international application. *Id.*

Applicants respectfully request that the U.S. Examiner apply unity of invention practice, not restriction practice, to the claims of the present application. It is believed that unity of invention exists between the claims of the present application.

If the Examiner believes that personal communication would expedite the prosecution of the present application, the Examiner is encouraged to contact the undersigned at the number provided below.

Respectfully submitted,

  
Grant E. Reed

Attorney for Applicant  
Registration No. 41,264  
Phone: 317-276-1664

Eli Lilly and Company  
Patent Division/GER  
Lilly Corporate Center  
Indianapolis, Indiana 46285

11/14/2001

Version Of Amended Claims With Markings To Show Changes Made

1. (Once amended) Ultralente-like crystals, comprising:

- a) a derivatized [protein selected from the group consisting of the] human insulin or derivatized human insulin analog [derivatives] formed by derivatizing human insulin or a human insulin analog with a [the] saturated, straight-chain fatty acid [acids] having from 4 to 16 carbon atoms such that the fatty acid forms an amide bond [acids form amide bonds] with the  $\epsilon$ -amino group of the B29-lysine of human insulin or a human insulin analog; and
- b) a divalent metal cation.

2. (Once Amended) The crystals of Claim 1, wherein the derivatized human insulin [derivative] is selected from the group consisting of B29-butanoyl-human insulin, B29-pentanoyl-human insulin, and B29-hexanoyl-human insulin.

3. (Once Amended) An insoluble composition, comprising the crystals of Claim 1 [any one of Claims 1-2].

5. (Once Amended) Ultralente-like crystals, comprising:

- a) a protein selected from the group consisting of insulin and insulin analogs;
- b) a derivatized [protein selected from the group consisting of the] human insulin or derivatized human insulin analog [derivatives] formed by derivatizing human insulin or a human insulin analog with a [the] saturated, straight-chain fatty acid [acids] having from 4 to 16 carbon atoms such that the fatty acid forms an amide bond [acids form amide bonds] with the  $\epsilon$ -amino group of the B29-lysine of human insulin or a human insulin analog; and
- c) a divalent metal cation.

6. (Once Amended) The crystals of Claim 5 [3], wherein the protein is human insulin.

7. (Once Amended) The crystals of Claim 1 [3], wherein the protein is a monomeric insulin analog.

9. (Once Amended) The crystals of Claim 1 [any one of Claims 3-6], wherein the molar proportion of derivatized human insulin or derivatized human insulin analog [derivatized protein] is from 15% to 90% of the total protein.

10. (Once Amended) The crystals of Claim 1 [any one of Claims 1-9], wherein the divalent metal cation is zinc, which is present at about 0.3 mole per mole of total protein to about 2 moles per mole of total protein.

11. (Once Amended) An insoluble composition, comprising the crystals of Claim 5 [any one of Claims 3-8].

13. (Once Amended) A pharmaceutical composition, comprising an insoluble phase and a solution phase, wherein the insoluble phase comprises [is comprised of] the insoluble composition of Claim 3 or 11, [Claim 3, Claim 4, Claim 11, or Claim 12,] and wherein the soluble phase comprises [is comprised of] an aqueous solvent.

14. (Once Amended) The pharmaceutical composition of Claim 13 wherein the solution phase [is] further comprises [comprised of] a preservative at a concentration of about 0.5 mg per mL to about 6 mg per mL of solution, a pharmaceutically acceptable buffer, and an isotonicity agent.

15. (Once Amended) A method of treating diabetes comprising administering the crystals of Claim 1 or 5 [any one of Claims 1-2 or Claims 5-10] to a patient in need thereof in a quantity sufficient to regulate blood glucose levels in the patient.

16. (Once Amended) A method of treating diabetes comprising administering the insoluble composition [compositions] of Claim 3 or 11 [Claim 13 or Claim 14] to a patient in need thereof in a quantity sufficient to regulate blood glucose levels in the patient.

17. (Once Amended) A method of treating hyperglycemia comprising administering the crystals of Claim 1 or 5 [any one of Claims 1-2 or Claims 5-10] to a patient in need thereof in a quantity sufficient to regulate blood glucose levels in the patient.

18. (Once Amended) A method of treating hyperglycemia comprising administering the insoluble composition [compositions] of Claim 3 or 11 [any one of Claim 13 or Claim 14] to a patient in need thereof in a quantity sufficient to regulate blood glucose levels in the patient.

19. (Once Amended) A process for preparing the crystals of Claim 1 [or Claim 2], comprising:

- a) preparing a crystallization solution comprising the derivatized human insulin or derivatized human insulin analog [protein], a buffer, a salt, and a divalent cation; and
- b) allowing time for crystallization to occur.

20. (Once Amended) A process for preparing the crystals of Claim 5 [any one of Claims 5-10], comprising:

- a) preparing a crystallization solution comprising (i) a protein, (ii) a derivatized human insulin or derivatized human

insulin analog [protein], (iii) a buffer, (iv) a salt, and (v) a divalent cation;

- b) combining the crystallization solution of a) with a nucleating seed suspension; and
- c) allowing time for crystallization to occur.

21. (New) The crystals of Claim 1, wherein the fatty acid is myristoyl fatty acid.

22. (New) The crystals of Claim 1, wherein the fatty acid is n-octanoic fatty acid.

23. (New) The crystals of claim 1, wherein the human insulin analog is des(ThrB30)-human insulin.

24. (New) The crystals of Claim 5, wherein the fatty acid is myristoyl fatty acid.

25. (New) The crystals of claim 5, wherein the fatty acid is n-octanoic fatty acid.

26. (New) The crystals of claim 5, wherein the human insulin analog is des(ThrB30)-human insulin.

27. (New) The crystals of Claim 5, wherein the molar proportion of derivatized human insulin or derivatized human insulin analog is from 15% to 90% of the total protein.

28. (New) The crystals of Claim 5, wherein the divalent metal cation is zinc, which is present at about 0.3 mole per mole of total protein to about 2 moles per mole of total protein.